

CLAIMS

What is claimed is:

1. A method for controlling display of supplemental content on a computer screen, the method comprising:

detecting that the supplemental content is displayed on the computer screen, the display of the supplemental content being controlled by a cursor position relative to a predefined first region;

triggering display of an interface element associated with the supplemental content when a cursor is positioned inside the first region;

defining a second region covering at least a portion of the interface element and a current position of the cursor; and

if the cursor is positioned inside the second region, continuing the display of the supplemental content upon detecting that the cursor is positioned outside of the first region.

2. The method of claim 1 wherein the supplemental content is related to content displayed in the first region.

3. The method of claim 2 wherein the supplemental content is a tool tip.

4. The method of claim 1 wherein the display of the supplemental content is triggered by positioning the cursor inside the first region.

5. The method of claim 1 further comprising:
removing the supplemental content from the computer screen upon
determining that the cursor is positioned inside the second control region while
being outside of the first region for a time period exceeding a predefined time
period.

6. The method of claim 1 further comprising:
displaying borders of the second region when the second region is
defined; and
canceling the display of the borders upon detecting the motion of the
cursor outside of the second region.

7. The method of claim 1 wherein:
the interface element includes at least two components, and
the second region covers at least a portion of each of the at least two
components.

8. The method of claim 1 further comprising:
canceling the display of the interface element upon detecting that the

cursor is positioned outside of the second region.

9. The method of claim 1 wherein the interface element is displayed at a predefined offset from the current position of the cursor.

10. The method of claim 9 further comprising:

canceling the display of the interface element upon detecting that the cursor is positioned outside of the second region while remaining within the first region;

detecting that the cursor is moved to a new position within the first region while the supplemental content remains visible; and

displaying the interface element at the predefined offset from the new position of the cursor.

11. The method of claim 1 further comprising:

altering the display of the supplemental content upon detecting a user action pertaining to the interface element.

12. The method of claim 11 further comprising:

canceling the display of the interface element when the user action is detected.

13. The method of claim 11 wherein altering the display of the supplemental action comprises altering the size of an area displaying the supplemental content.

14. The method of claim 11 wherein altering the display of the supplemental content comprises scrolling through the supplemental document.

15. The method of claim 11 wherein the user action comprises pausing the cursor over the interface element for a predefined time period.

16. A method for controlling display of supplemental content on a computer screen, the method comprising:

detecting that the supplemental content is visible on the computer screen ,
displaying an interface element associated with the visible supplemental content upon detecting an occurrence of at least one event related to a cursor motion;

defining a control region covering at least a portion of the interface element and a current position of the cursor; and

canceling the display of the supplemental content upon detecting that the cursor is positioned outside of the control region.

17. The method of claim 16 wherein the supplemental content is displayed in a separate window .

18. The method of claim 16 wherein detecting the occurrence of at least one event related to the cursor motion includes detecting that a change in a cursor position has been below a predefined threshold over a predetermined time interval.

19. The method of claim 16 wherein detecting the occurrence of at least one event related to the cursor motion includes detecting the absence of the cursor motion over a predetermined time interval.

20. The method of claim 18 wherein:
the predetermined time interval is larger than 0.05 second; and
the predefined threshold is less than fifty pixels.

21. The method of claim 16 further comprising:
refraining from displaying the interface element until the cursor is detected outside of an area where the supplemental content is displayed.

22. The method of claim 16 further comprising:
refraining from displaying the interface element until the cursor is detected outside of any visible interface element associated with a tool tip.

23. The method of claim 16 further comprising:

refraining from canceling the display of the supplemental content until the display of the interface element continues for a predefined time period.

24. The method of claim 16 further comprising:

canceling the display of the interface element upon detecting that the cursor is positioned outside of the control region.

25. The method of claim 16 wherein canceling the display of the supplemental content includes covering at least a portion of supplemental content with different content.

26. The method of claim 16 wherein canceling the display of the supplemental content includes closing a window containing the supplemental content.

27. The method of claim 16 further comprising:

determining that the supplemental content satisfies at least one requirement prior to displaying the interface element.

28. The method of claim 27 wherein at least one requirement includes any one of a requirement that the retrieval of the supplemental content over a computer network be completed, a requirement that the supplemental content be an

advertisement, a requirement that the supplemental content be a message sent to a user over the computer network, a requirement that the supplemental content be a message generated by a user computer, and a requirement that the window containing the supplemental content be a child of a window containing the current position of the cursor.

29. The method of claim 16 further comprising
- detecting that the cursor is positioned over the interface element while the supplemental content is visible;
 - detecting a predefined user action pertaining to the interface element while the cursor is positioned over the interface element; and
 - altering the display of the supplemental content upon detecting the predefined user action.

30. The method of claim 29 wherein altering the display comprises altering the size of a window containing the supplemental content.

31. The method of claim 29 wherein altering the display comprises:
- closing a first window containing the supplemental content, and
 - displaying the supplemental content in a second window.

32. The method of claim 29 wherein the predefined user action comprises

pausing the cursor over the interface element over a predefined time interval.

33. The method of claim 29 wherein the predefined user action comprises releasing a button of the pointing device while the cursor is positioned over the interface element.

34. The method of claim 16 wherein the interface element includes a link associated with the supplemental content.

35. The method of claim 17 further comprising:
after defining the control region, changing appearance of at least a portion of the separate window to indicate that the removal of the supplemental content can be triggered by detecting the cursor outside of the control region.

36. A method for controlling display of supplemental content on a computer screen, the method comprising:

detecting an occurrence of at least one event related to a cursor motion while the supplemental content is visible on the computer screen;

identifying a position of the cursor at the time the occurrence was detected;

defining a control region covering the identified position of the cursor, the control region having at least one border segment located at a predefined

distance from the identified position of the cursor; and

canceling the display of the supplemental content upon detecting that the cursor is positioned outside of the control region.

37. The method of claim 36 wherein the supplemental content is contained in a separate window.

38. The method of claim 36 further comprising:

detecting display of second supplemental content after canceling the display of the prior supplemental content;

detecting a second occurrence of at least one event related to the cursor motion while the second supplemental content is visible on the computer screen;

identifying a second position of the cursor at the time the second occurrence was detected;

defining a second control region covering the second position of the cursor, the second control region having at least one border segment that is different from a corresponding border segment of the control region associated with the prior supplemental content; and

canceling the display of the second supplemental content upon detecting that the cursor is positioned outside of the second control region.

39. The method of claim 38 wherein at least one border segment of the second

control region is located at the same distance from the second cursor position as the corresponding border segment of the control region associated with the prior supplemental content is located in relation to the prior cursor position.

40. The method of claim 39 wherein the second control region has the same shape and the same offset from the cursor position as the control region associated with the prior supplemental content.

41. The method of claim 38 wherein the second control region has at least one border segment that is the same as a border segment of the control region associated with the prior supplemental content.

42. The method of claim 36 wherein detecting the occurrence of at least one event related to the cursor motion includes detecting that a change in a cursor position has been below a predefined threshold over a predetermined time interval.

43. The method of claim 36 wherein detecting the occurrence of at least one event related to the cursor motion includes detecting the absence of the cursor motion over a predetermined time interval.

44. The method of claim 36 further comprising:

displaying at least one border segment of the control region upon defining the control region; and

canceling the display of the at least one border segment upon detecting that the cursor is positioned outside of the control region.

45. An apparatus to control display of supplemental content on a computer screen, the apparatus comprising:

a content detector to detect whether the supplemental content is displayed on the computer screen, the display of the supplemental content being controlled by a cursor position relative to a predefined first region;

an interface element controller to trigger display of an interface element associated with the supplemental content when a cursor is positioned inside the first region;

a control region identifier to define a second region covering at least a portion of the interface element and a current position of the cursor; and

a content removal controller to continue the display of the supplemental content when the cursor is positioned outside of the first region while being inside the second region.

46. The apparatus of claim 45 wherein the supplemental content is a tool tip.

47. The apparatus of claim 45 wherein the control region identifier is further

to display borders of the second region when the second region is defined, and to cancel the display of the borders upon detecting the motion of the cursor outside of the second region.

48. The apparatus of claim 45 wherein the interface element controller is to further cancel the display of the interface element upon detecting that the cursor is positioned outside of the second region.

49. The apparatus of claim 45 wherein the interface element controller is to display the interface element at a predefined offset from the current position of the cursor.

50. The apparatus of claim 45 further comprising a content display modifier to alter the display of the supplemental content upon detecting a user action pertaining to the interface element.

51. The apparatus of claim 50 wherein the content display modifier is to alter the display of the supplemental content by altering the size of an area displaying the supplemental content.

52. The apparatus of claim 50 wherein the content display modifier is to alter the display of the supplemental content by scrolling through the supplemental

document.

53. The apparatus of claim 50 wherein the user action comprises pausing the cursor over the interface element for a predefined time period.

54. An apparatus for controlling display of supplemental content on a computer screen, the apparatus comprising:

a content detector to detect that the supplemental content is visible on the computer screen;

a cursor motion controller to detect an occurrence of at least one event related to a cursor motion;

an interface element controller to display an interface element associated with the visible supplemental content when the occurrence of the at least one event related to the cursor motion is detected;

a control region identifier to define a control region covering at least a portion of the interface element and a current position of the cursor; and

a content removal controller to cancel the display of the supplemental content upon detecting that the cursor is positioned outside of the control region.

55. The apparatus of claim 54 wherein the supplemental content is displayed in a separate window .

56. The apparatus of claim 54 wherein the cursor motion controller is to detect the occurrence of at least one event related to the cursor motion by detecting that a change in a cursor position has been below a predefined threshold over a predetermined time interval.

57. The apparatus of claim 54 wherein the cursor motion controller is to detect the occurrence of at least one event related to the cursor motion by detecting the absence of the cursor motion over a predetermined time interval.

58. The apparatus of claim 54 wherein the content removal controller is to refrain from canceling the display of the supplemental content until the display of the interface element continues for a predefined time period.

59. The apparatus of claim 54 wherein the interface element controller is to determine that the supplemental content satisfies at least one requirement prior to displaying the interface element.

60. The apparatus of claim 59 wherein at least one requirement includes any one of a requirement that the retrieval of the supplemental content over a computer network be completed, a requirement that the supplemental content be an advertisement, a requirement that the supplemental content be a message sent to a user over the computer network, a requirement that the supplemental

content be a message generated by a user computer, and a requirement that the window containing the supplemental content be a child of a window containing the current position of the cursor.

61. The apparatus of claim 54 wherein the interface element includes a link associated with the supplemental content.

62. The apparatus of claim 55 further comprising a content display modifier to change appearance of at least a portion of the separate window to indicate that the removal of the supplemental content can be triggered by detecting the cursor outside of the control region.

63. An apparatus to control display of supplemental content on a computer screen, the apparatus comprising:

a cursor motion controller to detect an occurrence of at least one event related to a cursor motion while the supplemental content is visible on the computer screen and to identify a position of the cursor at the time the occurrence was detected;

a control region identifier to define a control region covering the identified position of the cursor, the control region having at least one border segment located at a predefined distance from the identified position of the cursor; and

a content removal controller to cancel the display of the supplemental

content upon detecting that the cursor is positioned outside of the control region.

64. The apparatus of claim 63 wherein the supplemental content is contained in a separate window.

65. The apparatus of claim 63 wherein the cursor motion controller is to detect the occurrence of at least one event related to the cursor motion by detecting that a change in a cursor position has been below a predefined threshold over a predetermined time interval.

66. The apparatus of claim 63 wherein the cursor motion controller is to detect the occurrence of at least one event related to the cursor motion by detecting the absence of the cursor motion over a predetermined time interval.

67. The apparatus of claim 63 wherein the control region identifier is further to define a second control region for second supplemental content visible on the computer screen, the second control region covering a second position of the cursor and having at least one border segment that is different from a corresponding border segment of the control region associated with the prior supplemental content

if the cursor is positioned inside the second region, continuing the display of the supplemental content upon detecting that the cursor is positioned outside of the first region.

72. A computer readable medium that provides instructions, which when executed on a processor, cause said processor to perform operations comprising:

detecting that the supplemental content is visible on the computer screen ,
displaying an interface element associated with the visible supplemental content upon detecting an occurrence of at least one event related to a cursor motion;

defining a control region covering at least a portion of the interface element and a current position of the cursor; and

canceling the display of the supplemental content upon detecting that the cursor is positioned outside of the control region.

73. A computer readable medium that provides instructions, which when executed on a processor, cause said processor to perform operations comprising:

detecting an occurrence of at least one event related to a cursor motion while the supplemental content is visible on the computer screen;

identifying a position of the cursor at the time the occurrence was detected;

defining a control region covering the identified position of the cursor, the

